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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/803,091	03/08/2001	Yukihisa Takeuchi	789_068	8529

25191 7590 10/23/2003

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EXAMINER	
LESPERANCE, JEAN E	

ART UNIT	PAPER NUMBER
2674	

DATE MAILED: 10/23/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/803,091	TAKEUCHI ET AL.	
	Examiner	Art Unit	
	Jean E Lesperance	2674	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09 June 2003* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-4,26,27 and 32-35* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4,26,27 and 32-35* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *08 March 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

1. Claims 1-4, 26, 27, and 32-35 are presented for examination.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 2, and 32-34 are rejected under 35 U.S.C. 102 (e) as being unpatentable over U.S. Patent # 6,329,973 ("Akimoto et al.").

As for claim 1, Akimoto et al. teach a display pixel array Fig.1 (18) corresponding to a display; the write signal generating circuit 17 divides the image data into a moving image and a still image (column 4, lines 66 and 67) corresponding to a display area-separating section for separating a display area of said display into a moving picture display area and a still picture display area; Fig.3 shows the gradational expression between the moving picture display area and the still picture display area and they are separately formed by using different symbols.

As for claim 2, Akimoto et al. teach a display pixels are arranged in a matrix state in a display pixel area 53 (column 3, lines 50 and 51) corresponding to said display is constructed by arranging a large number of display components; and the data of the moving image is supplied to the moving image signal output circuit 43 and the address of the moving image is outputted to the moving image vertical direction selecting circuit 52 and the moving image horizontal direction selecting circuit 44. The data of the still image is outputted to the still image signal output circuit 41 and the address of the still image is outputted to the still image vertical direction selecting circuit 51 and the still image horizontal direction selecting circuit 42 (column 3, lines 1-10) corresponding to said display area-separating section separates said display area of said display into said moving picture display area and said still picture display area on the basis of address data to indicate said display components.

As for claims 32 and 33, Akimoto et al. teach that figure 3 shows the gradational expression between the moving picture display area and the still picture display area and they are separately formed by using different symbols. It is inherent in the art to know that picture elements likes pixels have an ON/OFF state and to know that picture elements like pixels have different ON/OFF states for each frame of said moving picture display.

As for claim 34, Akimoto et al. teach that figure 3 shows the gradational expression between the moving picture display area and the still picture display area and they are separately formed by using different symbols; the image data generating apparatus 91 inputs image data of only rows including a part (called a moving picture

part) changed from the previous frame as rewriting part image data to the liquid crystal driver 92 (column 1, lines 53-57) corresponding to display formed by means of temporal modulation of said plurality of picture elements.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claim 35 is rejected under 35 U.S.C. 103 (a) as being unpatentable over U.S. Patent # 6,329,973 ("Akimoto et al.") in view of U.S. Patent # 6,344,839 ("Denda et al.").

As for claim 35, Akimoto et al. teach the write signal generating circuit 17 divides the image data into a moving image and a still image (column 4, lines 66 and 67) corresponding to the display system wherein said gradational expression of said moving picture display is formed. Accordingly, Akimoto et al. teach all the claimed limitations as recited in claim 35 with the exception of providing a subfield driving and/or linear subfield driving of said plurality of picture elements.

However, Denda et al. teach a moving picture distortion elimination circuit for a display device using a subfield drive method wherein one screen display duration of a display panel is time-shared into n-bit display durations (column 10, lines 3-6)

corresponding to a subfield driving and/or linear subfield driving of said plurality of picture elements.

It would have been obvious to utilize the moving picture distortion as taught by Denda et al. in the image display device disclosed by Akimoto et al. because this would compensate for the degradation of picture quality of a moving image arising from a half-tone display of the subframe method.

4. Claims 3 and 26 are rejected under 35 U.S.C. 103 (a) as being unpatentable over U.S. Patent # 6,329,973 ("Akimoto et al.') in view of U.S. Patent # 6,466,183 ("Yamamoto et al.").

As for claims 3 and 26, Akimoto et al. teach a display pixels are arranged in a matrix state in a display pixel area 53 (column 3, lines 50 and 51) corresponding to said display is constructed by arranging a large number of display components; and the data of the moving image is supplied to the moving image signal output circuit 43 and the address of the moving image is outputted to the moving image vertical direction selecting circuit 52 and the moving image horizontal direction selecting circuit 44. The data of the still image is outputted to the still image signal output circuit 41 and the address of the still image is outputted to the still image vertical direction selecting circuit 51 and the still image horizontal direction selecting circuit 42 (column 3, lines 1-10) corresponding to said display area-separating section separates said display area of said display into said moving picture display area and said still picture display area on the basis of address data to indicate said display components. Accordingly, Akimoto et

al. teach all the claimed limitations as recited in claims 3 and 26 with the exception of providing a central facility connected to a network.

However, Yamamoto et al. teach a network concerning the picture display may be constructed among stations (column 14, lines 66 and 67) corresponding to a central facility connected to a network.

It would have been obvious to utilize the network as taught by Yamamoto et al. in the image display device disclosed by Akimoto et al. because this would allow the modified image display device to transfer picture data to a plurality of workstations within the network.

5. Claim 4 is rejected under 35 U.S.C. 103 (a) as being unpatentable over U.S. Patent # 6,329,973 ("Akimoto et al.') in view of European Patent Application # EP0851260A2 ("Takeuchi et al.").

As for claims 4, Akimoto et al. teach a display pixel array Fig.1 (18) corresponding to a display. Accordingly, Akimoto et al. teach all the claimed limitations as recited in claim 4 with the exception of providing an optical guide plate and a light source.

However, Takeuchi et al. disclose an optical waveguide plate Fig.1 (12) for introducing light 10 from a light and a light source 200 thereto, and a driving section 16 provided opposingly to the back surface of the optical waveguide plate 12 and including a larger number of actuator elements 14 which are arranged corresponding to picture elements (column 11, lines 57 and 58 and column 11, lines 1-5) corresponding to said display is a display comprising an optical guide plate for introducing light from a light

source there into, and a driving section provided opposingly to a first plate surface of said optical guide plate and arranged with actuator elements of a number corresponding to a large number of picture elements, wherein a screen image corresponding to an image signal is displayed on said optical guide plate by controlling a displacement action of said actuator element in a direction to make contact or separation with respect to said optical guide plate in accordance with an attribute of said image signal to be inputted so that leakage light is controlled at a predetermined portion of said optical guide plate.

It would have been obvious to utilize the optical waveguide plate and the light source as taught by Takeuchi et al. in the image display device disclosed by Akimoto et al. because this would provide a display device in which the selection period for a picture element is minimized to make it possible to effectively reduce electric power consumption.

6. Claim 27 is rejected under 35 U.S.C. 103 (a) as being unpatentable over U.S. Patent # 6,329,973 ("Akimoto et al.') in view of U.S. Patent # 6,466,183 ("Yamamoto et al.") in further view of European Patent Application # EP0851260A2 ("Takeuchi et al.").

As for claim 27, As for claims 4, Akimoto et al. and Yamamoto et al. teach a display pixel array Fig.1 (18) corresponding to a display. Accordingly, Akimoto et al. and Yamamoto teach all the claimed limitations as recited in claim 27 with the exception of providing an optical guide plate and a light source.

However, Takeuchi et al. disclose an optical waveguide plate Fig.1 (12) for introducing light 10 from a light and a light source 200 thereto, and a driving section 16 provided opposingly to the back surface of the optical waveguide plate 12 and including a larger number of actuator elements 14 which are arranged corresponding to picture elements (column 11, lines 57 and 58 and column 11, lines 1-5) corresponding to said display is a display comprising an optical guide plate for introducing light from a light source there into, and a driving section provided opposingly to a first plate surface of said optical guide plate and arranged with actuator elements of a number corresponding to a large number of picture elements, wherein a screen image corresponding to an image signal is displayed on said optical guide plate by controlling a displacement action of said actuator element in a direction to make contact or separation with respect to said optical guide plate in accordance with an attribute of said image signal to be inputted so that leakage light is controlled at a predetermined portion of said optical guide plate.

It would have been obvious to utilize the optical waveguide plate and the light source as taught by Takeuchi et al. in the modified image display device disclosed by Akimoto et al. and Yamamoto et al because this would provide a display device in which the selection period for a picture element is minimized to make it possible to effectively reduce electric power consumption.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Jean Lesperance whose telephone number is (703) 308-6413. The examiner can normally be reached on from Monday to Friday between 8:OOAM and 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Hjerpe, can be reached on (703) 305-4709 .

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

Jean Lesperance

Art Unit 2674

Date 10-10-2003

RICHARD HJERPE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600